

REMARKS

Claims 1-21 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-7, 9-17, and 19-27 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Mobley et al. (U.S. Pat. No. 5,708,963). This rejection is respectfully traversed. Notwithstanding, claims 22-27 are cancelled solely for the purpose of expediting prosecution.

Regarding claims 1-7, 9-17, and 19-21, independent claim 1 calls for “packet encrypting” a first data stream at a ground segment and then sending the packet encrypted first data stream to multiple airborne segments. Claim 1 also call for “bulk encrypting” a second data stream at one of the airborne segments and then sending the bulk compressed second data stream to the ground segment. As such, different encrypting techniques are used on the forward and return links of the data transfer.

The claimed method is particularly advantageous in an aeronautical mobile communication environment where the communications network is divided into a forward link and a return link. Most communicating over the forward link, i.e., ground to air, includes a single transmitting source and multiple recipients. As such, the data transmitted on the forward link typically includes routing information (i.e., a header). By packet encrypting the data transmitted on the forward link, some encrypting is

performed to enhance security yet the data header is preserved to maintain routing ability.

In contrast, most communicating over the return link, i.e., air to ground, includes multiple transmitting sources and a single recipient. Consequently, the data transmitted on the return link is typically devoid of routing information. By bulk encrypting the data transmitted on the return link, maximum security is achieved since all of the data is encrypted.

Mobley fails to teach or suggest such a method. Mobley is directed towards a direct-to-home subscription information delivery service system. Mobley teaches a return path employing low earth orbiting satellites for returning data from a subscriber location to a service originator. Mobley uses a low earth orbiting satellite to gather data from a subscriber. The data is returned to a serving gateway for further transmission to the service provider via a “bent pipe” or “store-and-forward” technique.

In contrast to the claimed invention, neither the bent pipe nor the store-and-forward techniques contemplate data manipulation at the satellite. In other words, Mobley teaches a satellite which merely gathers the information from the subscriber and forwards that information (in an unmodified form) to the service provider. Mobley fails to teach decrypting packet encrypted data at the satellite. Mobley also fails to teach bulk encrypting data at the satellite and sending the bulk encrypted data to the service provider. Rather, to the extent encrypted data is received at the satellite, the satellite merely forwards the “as-is” encrypted data to the service provider for decryption. At column 15, line 66 - column 16, line 5, Mobley specifically teaches that the service provider may store a look-up table or secret serial numbers for returned subscriber

identifiers so the returned data may be decrypted at an accounting center and subsequently analyzed. It is respectfully pointed out that column 4, lines 4-11 does not disclose bulk encrypting (scrambling) a second data stream (broadcast polls) at a second location (satellite) as alleged in the office action. This portion of Mobley merely states that scrambling can be implemented in Digital Broadcast Satellite Systems.

Mobley fails to teach a forward link that includes packet encrypting a first data stream at a ground segment, sending the packet encrypted first data stream to multiple airborne segments, and then decrypting the packet encrypted data at one of the airborne segments as claimed. Mobley also fails to teach a return link that includes bulk encrypting a second data stream at one airborne segment and then sending the bulk encrypted second data stream to the ground segment as claimed.

Mobley fails to teach each and every aspect of claim 1. In particular, Mobley fails to teach using different encryption techniques on the forward and return links of a ground-to-air-to-ground data transfer. More particularly, Mobley fails to teach packet encryption on the forward link and bulk encryption on the return link.

In view of the foregoing, Applicant respectfully submits that Mobley fails to anticipate claim 1. As such, reconsideration and withdrawal of this rejection are respectfully requested.

Claims 2-7, 9-17 and 19-21 depend from and further define the subject matter of claim 1. Applicant respectfully submits that these claims are allowable for at least the same reasons as set forth above with respect to claim 1. It should also be noted that claims 20 and 21 call for different compression techniques on the forward and return links of the data transfer.

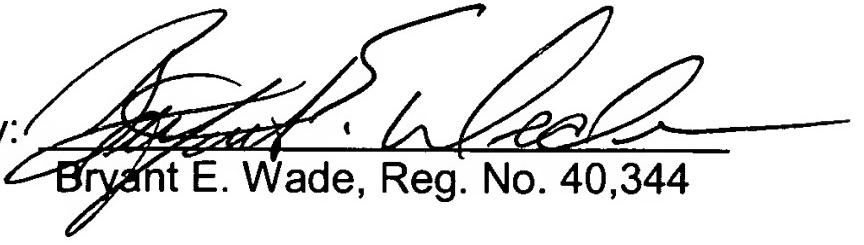
REJECTION UNDER 35 U.S.C. § 103

Claims 8 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mobley in view of Dennis (U.S. Pat. No. 5,365,447). This rejection is respectfully traversed. Claims 8 and 18 depend from and further define the subject matter of claim 1. Applicant respectfully submits that these claims are allowable for at least the same reasons as set forth above with respect to claim 1.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

By: 
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